

Observations of Comet *a* 1888 (Sawerthal), made at the Royal Observatory, Greenwich.

(Communicated by the Astronomer Royal.)

The observations were made with the East or Sheepshanks Equatorial, aperture 6·7 inches, by taking transits over two cross wires at right angles to each other, and each inclined 45° to the parallel of declination.

Comet *a* 1888 (Sawerthal).

Greenwich Mean Solar Time.	Observer.	R.A. m s	Corr. for Par. and Refraction in R.A. s	N.P.D.	Corr. for Par. and Refraction in N.P.D.	No. of Comp.	Apparent R.A.			Apparent N.P.D.	Comp. Star.
							h	m	s		
1888 d h m s											
May 11 14 30 1	H. T.	-1 15·22	-0·30	+ 8 12·7	-3·0	6	23	48	25·58	57 52 13·4	<i>a</i>
12 13 45 29	T.	-0 36·39	-0·30	+ 1 8·1	-3·6	9	23	50	25·31	57 26 15·4	<i>b</i>
13 58 11	+0 11·25	-0·30	+0·41	+0·10	-2·8	2	...	...	...	...	<i>c</i>
13 13 10	H. T.	+2 3·35	-0·30	-7 48·0	-5·1	4	23	52	28·55	57 0 27·3	<i>d</i>
13 18 22	+3 49·12	-0·32	-	-1 23·6	-4·1	5	23	52	30·10	57 0 29·3	<i>e</i>
13 28 27	-1 15·20	-0·37	+ 6 16·4	-3·1	3	23	52	31·03	57 0 12·9	<i>f</i>	
15 13 28 56	H. T.	-2 21·50	-0·30	+11 8·1	-3·0	3	23	56	35·90	56 9 28·0	<i>g</i>
18 12 29 10	H. T.	-1 16·48	-0·30	-0 22·3	-4·1	6	...	...	...	...	<i>h</i>
23 12 24 12	T.	+0 7·25	-0·30	-2 24·3	-4·6	8	...	...	...	...	<i>i</i>
31 12 44 43	H. T.	+1 14·63	-0·30	+ 1 34·5	-3·2	4	0	25	41·23	50 16 42·6	<i>j</i>
12 48 34	+1 7·93	-0·30	-	-5 59·7	-3·8	6	...	...	...	...	<i>k</i>
12 56 17	-1 48·90	-0·30	-	-14 17·6	-4·3	2	0	25	39·90	50 16 35·5	<i>l</i>
June 3 13 27 45	H. T.	+1 29·10	-0·30	+ 4 14·7	-2·6	1	0	30	26·90	49 19 9·0	<i>m</i>
6 11 37 2	H. T.	-0 25·92	-0·20	+ 0 9·5	-3·6	6	...	...	...	...	<i>n</i>

*Mean Places of Comparison Stars.*

Star's Name.	R.A., 1888 o.	N.P.D., 1888 o.	Authority.
	h m s	° ' "	
<i>a</i>	Lalande 46883	23 49 41.57	Second Armagh Catalogue.
<i>b</i>	W. B. (2) XXIII. 1029	23 51 2:42	Weisse's Bessel (2).
<i>c</i>	Arg. Zone +32°, No. 4736	23 50 16	Bonn Observations, Vol. IV.
<i>d</i>	W. B. (2) XXIII. 1020	23 50 25.91	Second Armagh Catalogue.
<i>e</i>	W. B. (2) XXIII. 989	23 48 41.71	Weisse's Bessel (2).
<i>f</i>	Lalande 47034	23 53 47.05	Greenwich Observations, 1880.
<i>g</i>	W. B. (2) XXIII. 1243-4	23 58 58.15	Weisse's Bessel (2).
<i>h</i>	Arg. Zone +34°, No. 5	0 3 47	Bonn Observations, Vol. IV.
<i>i</i>	Arg. Zone +36°, No. 25	0 11 50	Bonn Observations, Vol. IV.
<i>j</i>	W. B. (2) o, 570	0 24 26.97	Weisse's Bessel (2).
<i>k</i>	Anonymous		
<i>l</i>	W. B. (2) o, 656-7	0 27 29.16	Second Armagh Catalogue.
<i>m</i>	W. B. (2) o, 689	0 28 58.05	Weisse's Bessel (2).
<i>n</i>	Arg. Zone +41°, No. 109	o 35 14	Bonn Observations, Vol. V.

*Notes.*

May 11.—Comet faint. Could only be observed by averted vision. A good deal of haze. Tail traceable for about 4°.

May 12.—Comet very faint.

May 23.—Comet has well-defined nucleus equal to 4th or 5th magnitude star, showing brightly in strong moonlight. No tail visible.

May 31.—Comet about as bright as a 7th magnitude star.

June 3.—Comet a little fainter than a 7.5 magnitude star.

June 6.—Comet about as bright as a 9th magnitude star.

The observations are corrected for parallax and refraction.

The initials H. T., T. are those of Mr. Turner and Mr. Thackeray respectively.

*Observations of Comet a 1888 (Sawerthal), made at the Radcliffe Observatory, Oxford.*

(Communicated by E. J. Stone, M.A., F.R.S., Radcliffe Observer.)

The following observations of Comet Sawerthal were made with the<sup>the</sup> Bardey Equatorial, using the ring micrometer with power 100.

1888.	G.M.T.	Comet—Star		Comparisons.	Apparent R.A. of Comet.	Log ( $p \times \Delta$ )	Apparent N.P.D. of Comet.	Log ( $p \times \Delta$ )	Observer.
		Corrected for Refraction only	$\Delta$ N.P.D.						
May 23	12 43 23	m <sup>s</sup>	+4 57 27	+6 32 80	8	h m <sup>s</sup>	0 II 58:01	9:36:08	R.

*Assumed Place of Comparison Star (Lalande 89).*

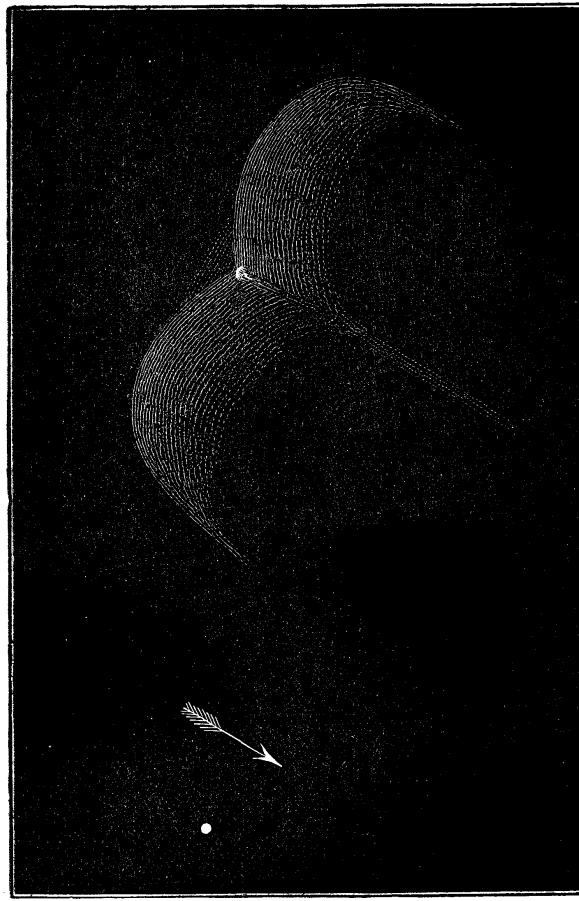
Mean R.A. 1888 <sup>o</sup> .	Reduction to Apparent Place.	Mean N.P.D. 1888 <sup>o</sup> .	Reduction to Apparent Place.
0 7 096	s —0.22	52° 55' 45" 56	+12° 22"

Authority.

Mean of Radcliffe observations, 1873, 1874, and 1875.

*Observer's Remarks.*

The coma of Comet is nearly 3' broad (having widened considerably since May 2), and resembles a pair of wings. The following half of the nucleus forms a well-defined and bright semicircular disc, the preceding part gradually fading down until lost in the nebulosity of the coma. With power 100 the nucleus is equal in brightness to the star near (Arg. Z. + 36°, No. 25), or 8.7 mag., but in the 3-inch finder is nearly as bright as the comparison star (Lalande 89), or 6.8 mag. A faint streak of the tail is visible, and is about 2' in length. Strong moonlight.



Sketch of Comet a 1888 (Sawerthal), May 23, 12<sup>h</sup> 45<sup>m</sup> G.M.T. Drawn by Mr. W. H. Robinson, using the Bardey Equatorial, with power 180. (The Star near is Arg. Z. + 36°, No. 25.)